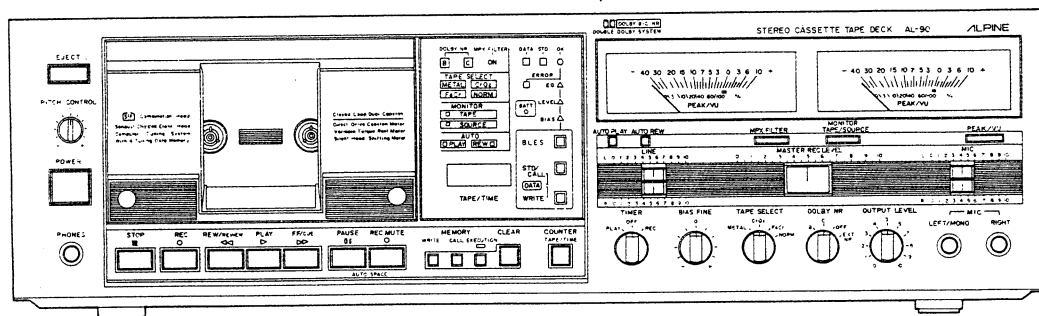


ILLUSTRATION MANUAL

STEREO CASSETTE TAPE DECK

AL90



ALPINE

● Please use this ILLUSTRATION MANUAL together with the supplied INSTRUCTION MANUAL.

- FRONT PANEL • FACE AVANT • VORDERANSICHT
- VEDUTA FRONTALE • VISTA DELANTERA

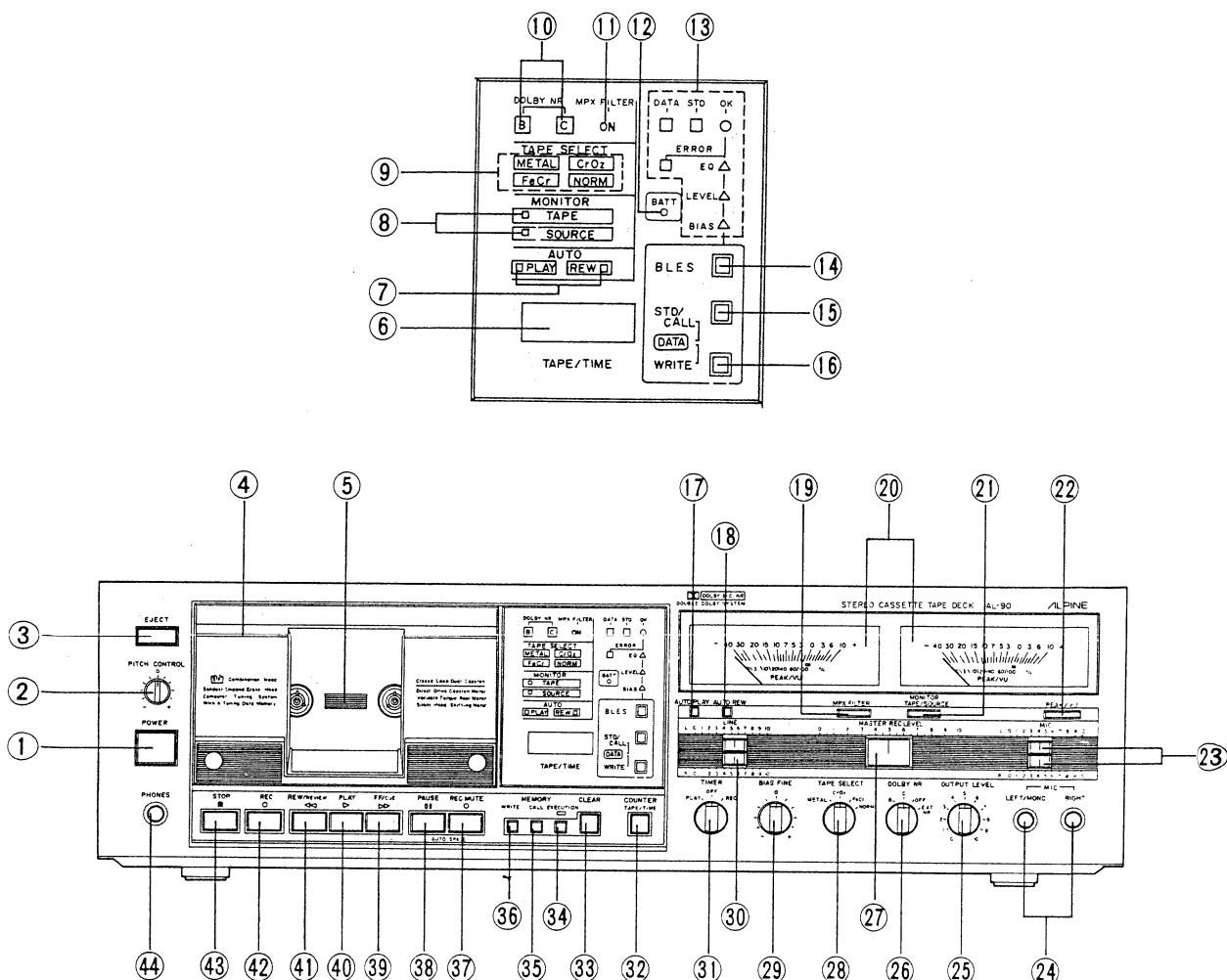


Fig. 1/Abb. 1

- REAR PANEL • FACE ARRIERE • RÜCKANSICHT
- VEDUTA POSTERIORE • VISTA TRASERA

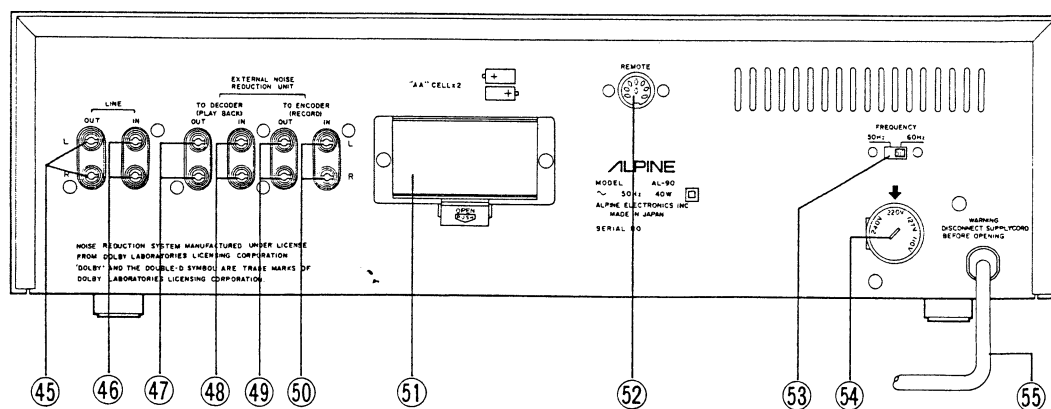


Fig. 2/Abb.2

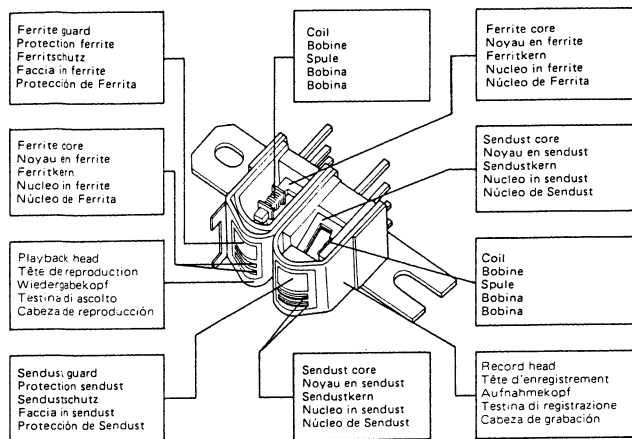


Fig. 3/Abb. 3

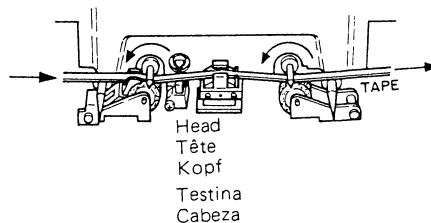


Fig. 4/Abb. 4

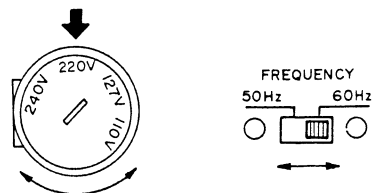


Fig. 5/Abb. 5

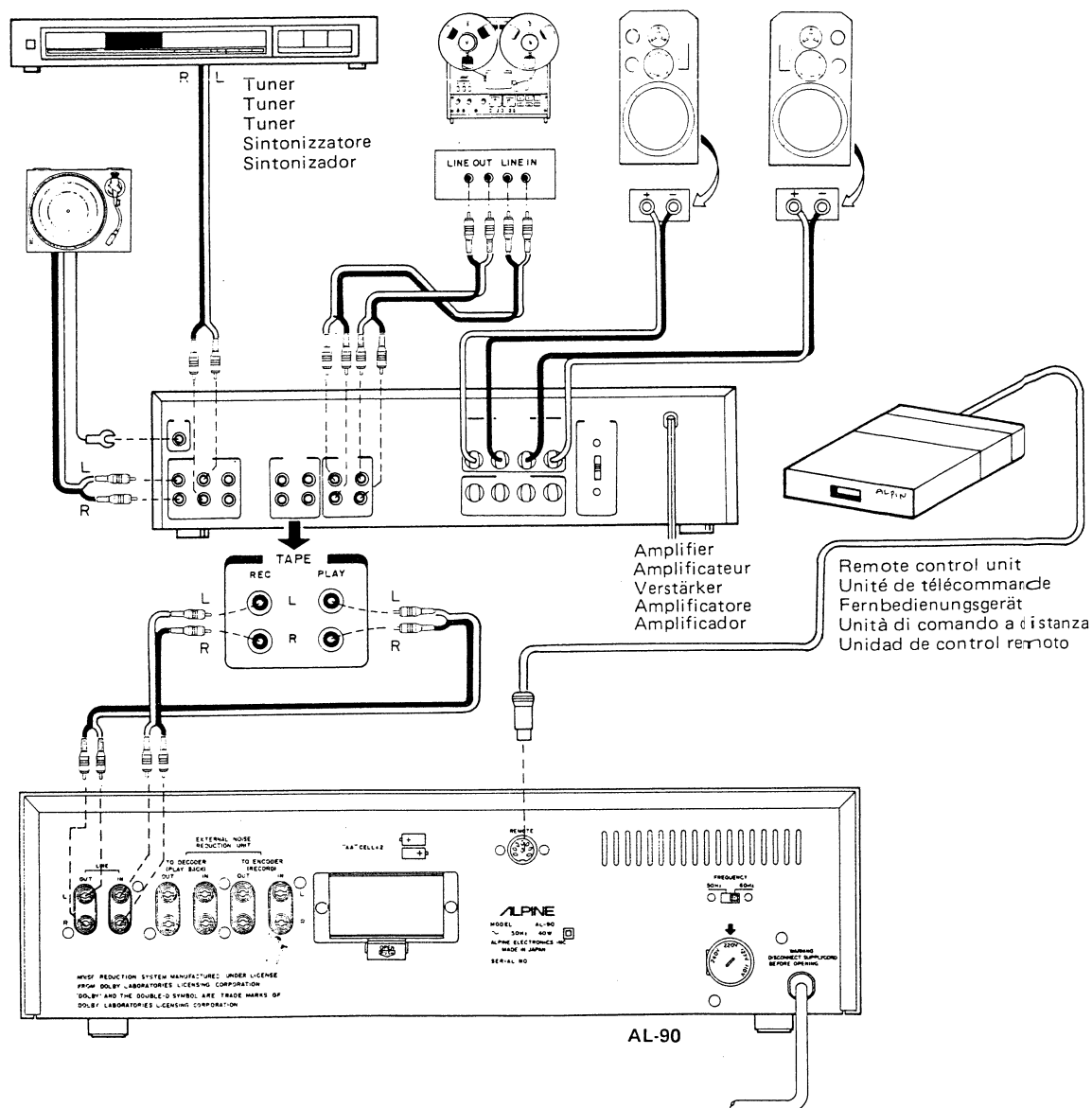


Fig. 6/Abb. 6

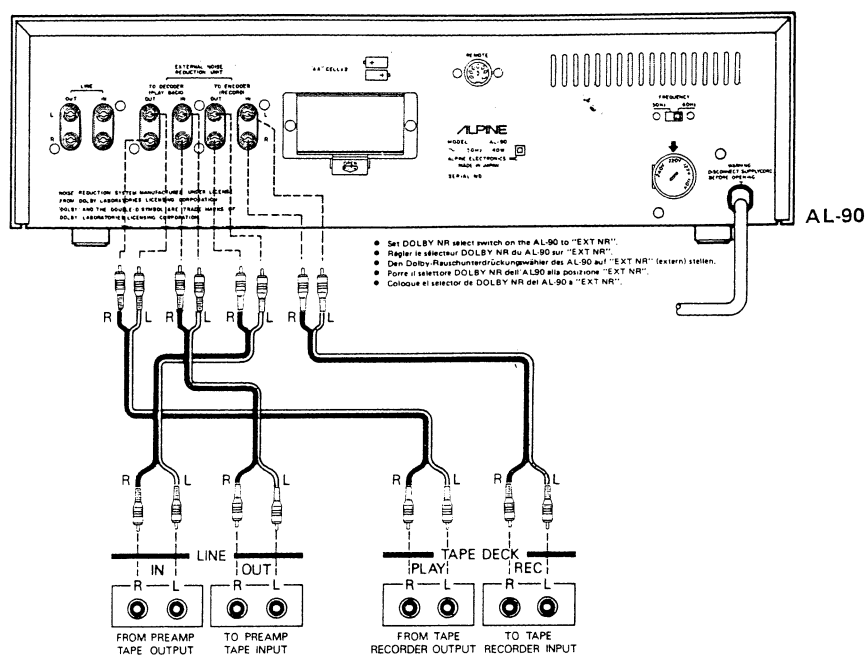


Fig. 7/Abb. 7

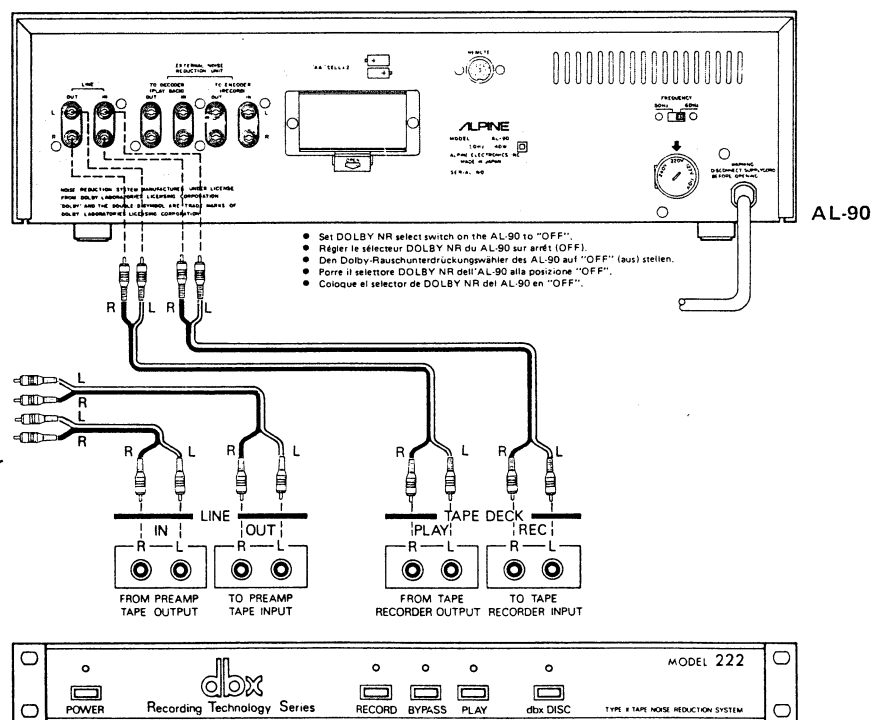


Fig. 8/Abb. 8

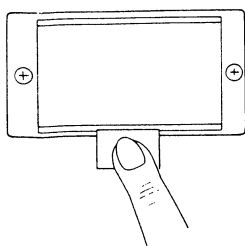
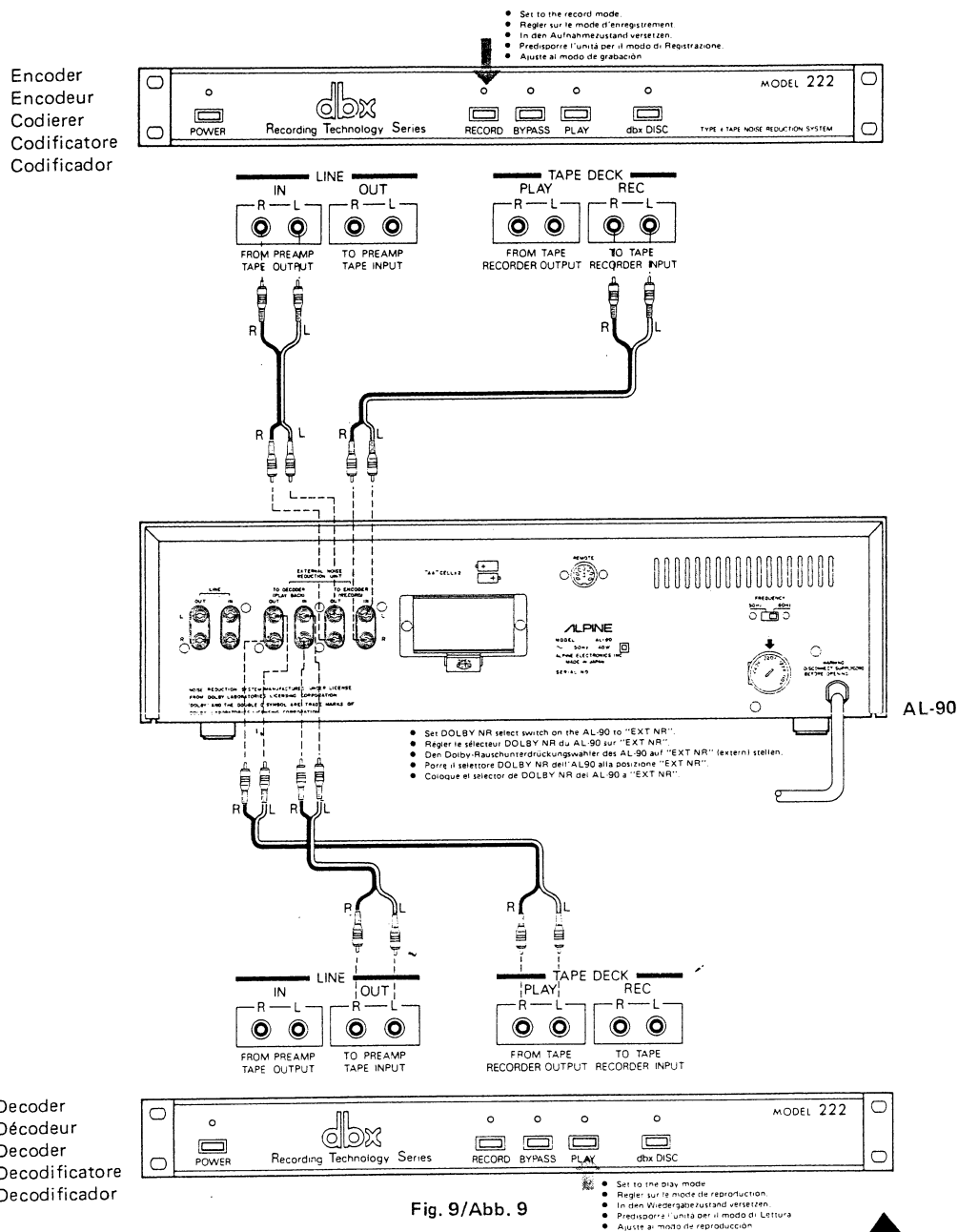


Fig. 10/Abb. 10

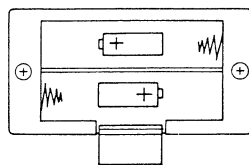


Fig. 11/Abb. 11

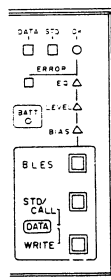


Fig. 12/Abb. 12

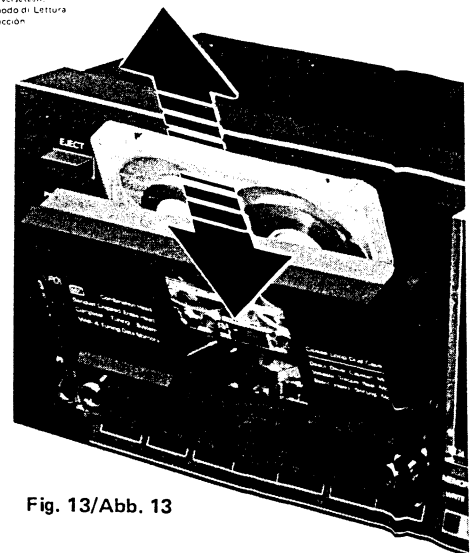


Fig. 13/Abb. 13

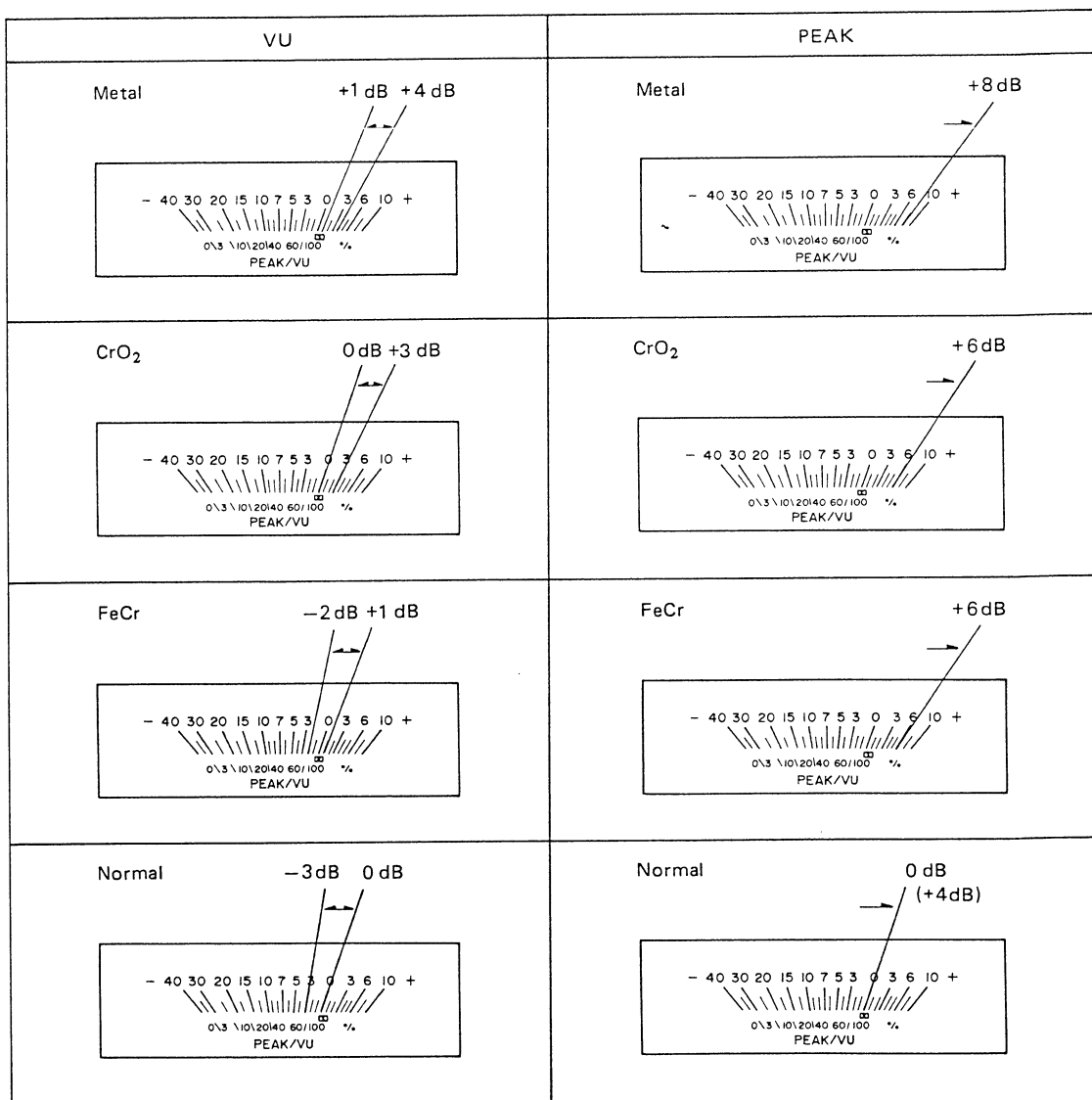
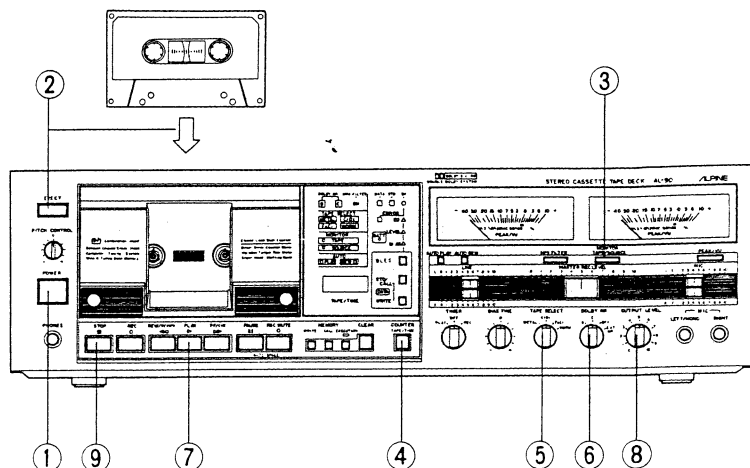
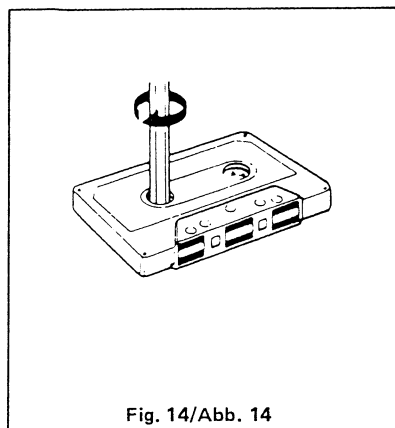


Fig. 16/Abb. 16

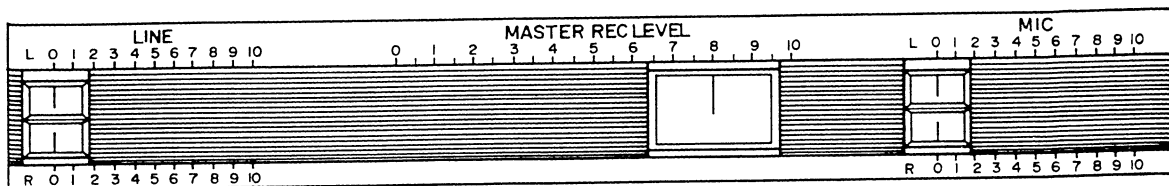


Fig. 17/Abb. 17

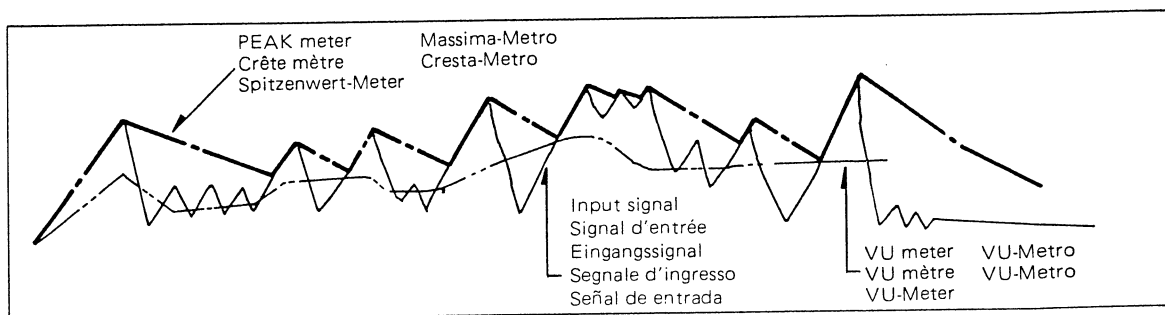


Fig. 18/Abb. 18

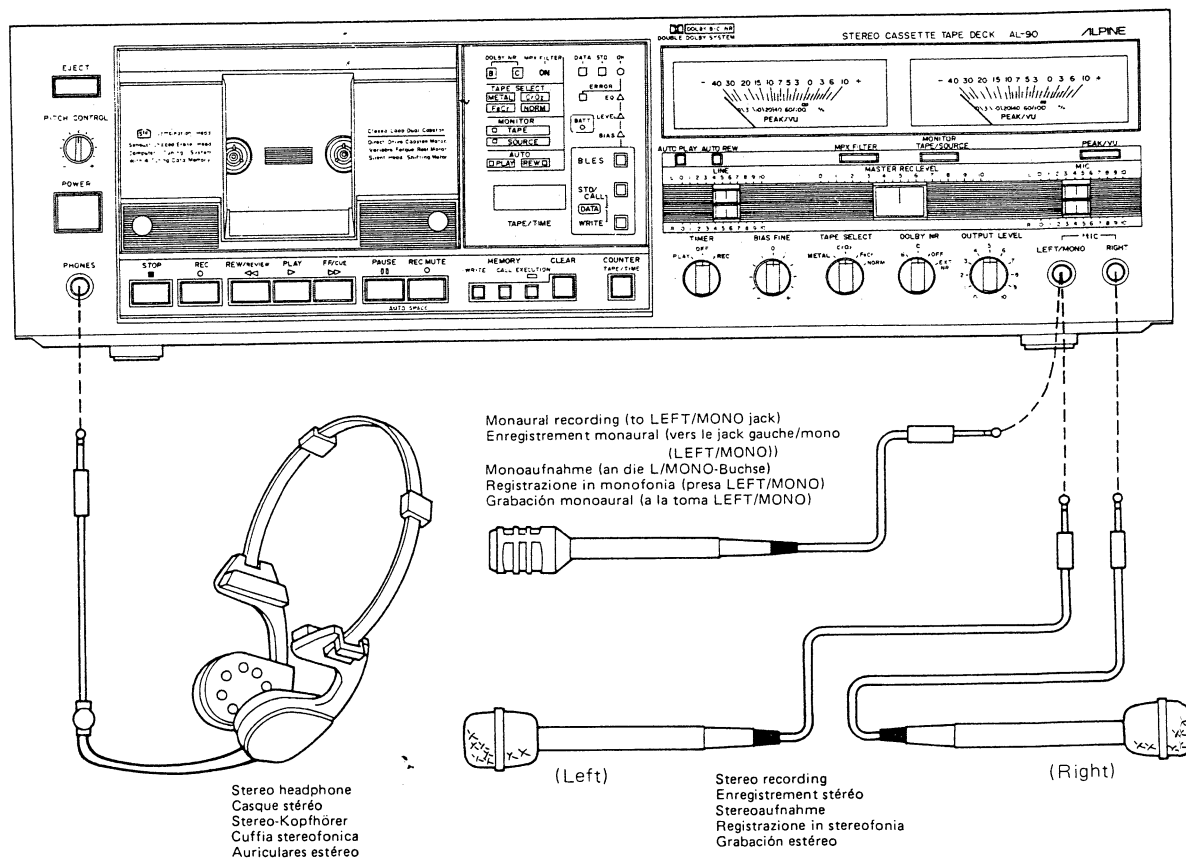


Fig. 19/Abb.19

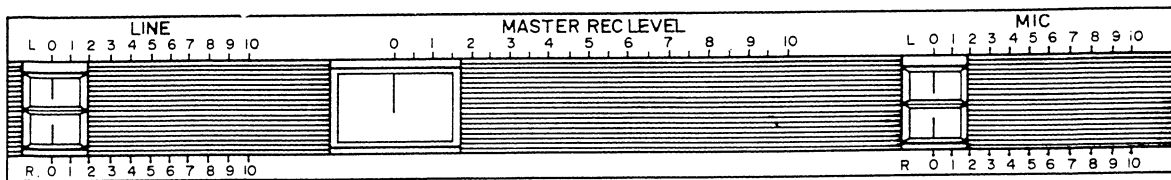


Fig. 20/Abb. 20

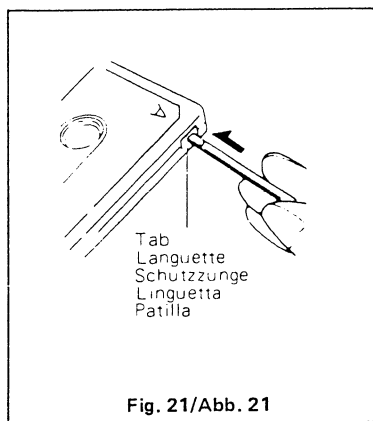


Fig. 21/Abb. 21



Fig. 22/Abb. 22

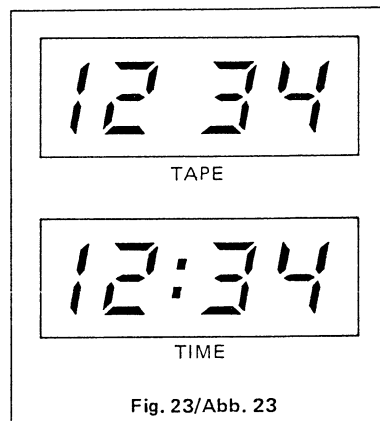


Fig. 23/Abb. 23

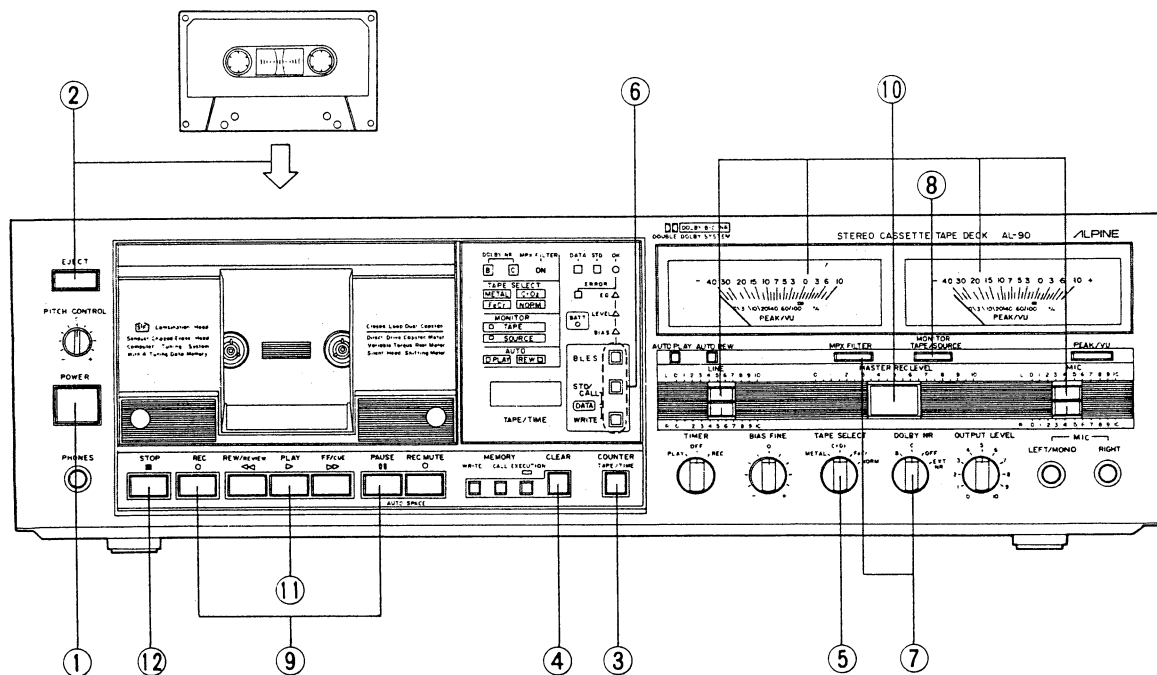


Fig. 24/Abb. 24

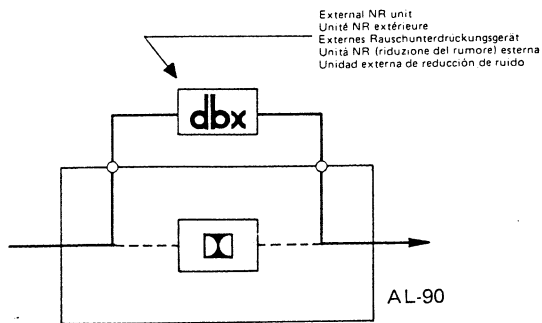


Fig. 25/Abb. 25

Tape Motion						NOTE
STOP	REC	REW	PLAY	PAUSE	REC MUTE	
	①	①		②		(A)
	①	①		② ③		(B)
						(C)

Fig. 26/Abb. 26

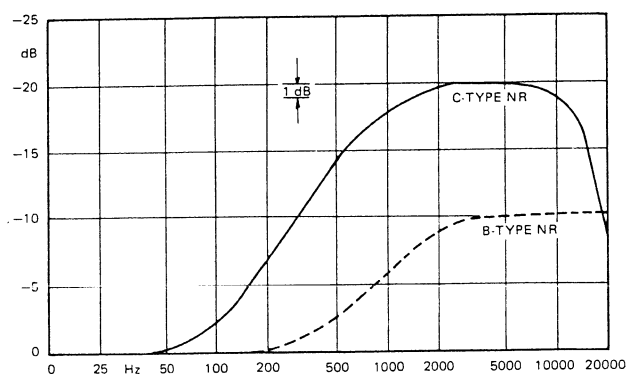
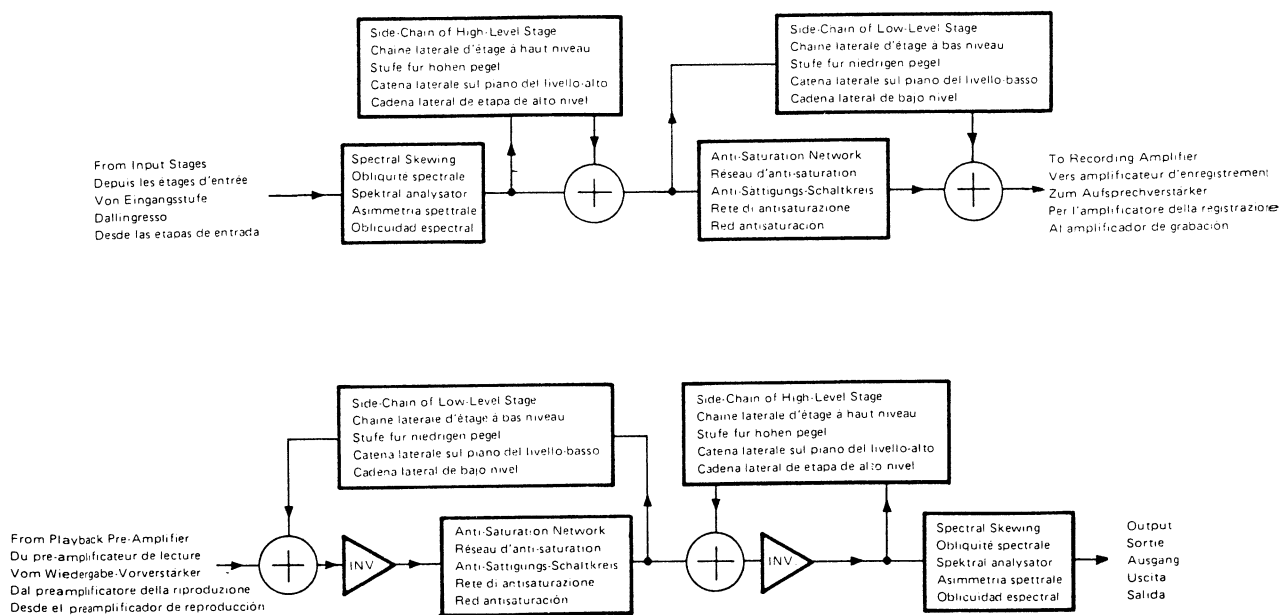


Fig. 27/Abb. 27

Low-level encoding frequency Response
Réponse de fréquence d'encodage à bas niveau
Frequenzgang bei niedrigem Aufnahmepiegel
Risposta in frequenza "encoding" sul livello-basso
Respuesta de frecuencia de encodificación de bajo nivel



Dolby C-type NR block diagram
Schéma de principe du système NR Dolby type C
Blockschaltbild des Dolby-C-Schaltkreises
Schema a blocchi del Dolby NR
Diagrama de conjunto del sistema de reducción de ruido Dolby del tipo C

Fig. 28/Abb. 28

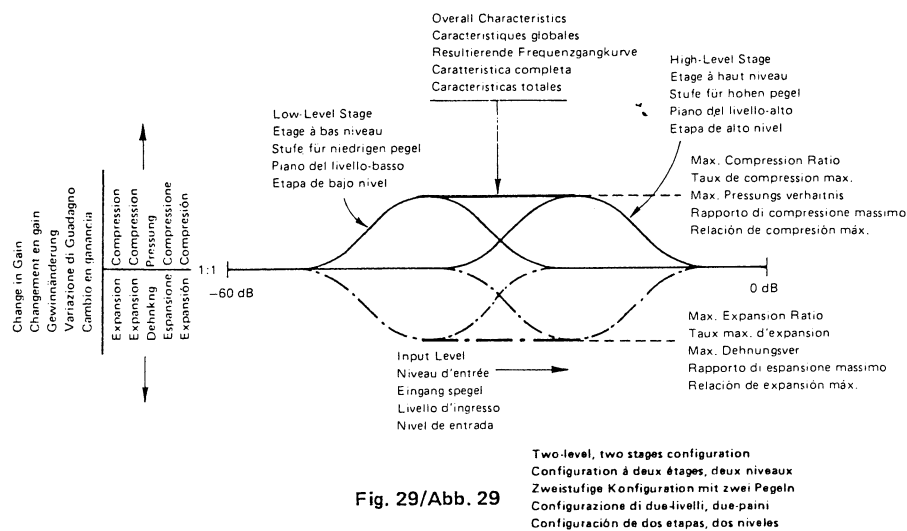


Fig. 29/Abb. 29

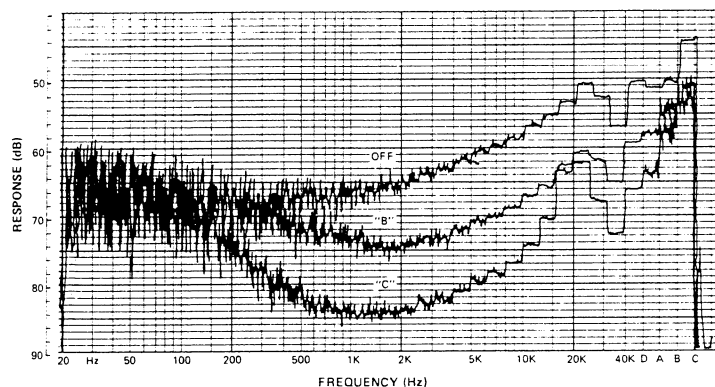
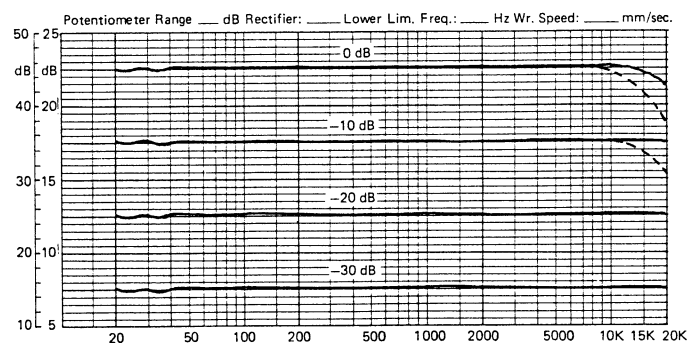


Fig. 30/Abb. 30

Noise level (Metal tape)
Niveau de bruit (Band au Métal)
Rauschpegel (Metallband)
Livello disturbo (Nastro Metallo)
Nivel de ruido (Cinta Metálica)



Dolby C Type NR: ON
Dolby type CNR : En fonction
Mit Dolby-C
Dolby tipo-CNR : Chiuso
Dolby tipo CNR : ON

Dolby C Type NR: OFF
Dolby type CNR : Hors fonction
Ohne Dolby-C
Dolby tipo-CNR : Aperto
Dolby tipo CNR : OFF

Fig. 31/Abb. 31

Frequency Response of Dolby C type NR
Réponse de fréquence du système Dolby type C NR
Frequenzgangkurve für Dolby-C
Risposta frequenza del Dolby tipo-C NR
Respuesta de frecuencia Dolby tipo C NR

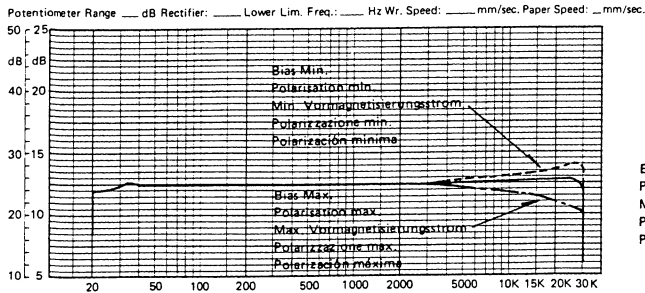


Fig. 32/Abb. 32

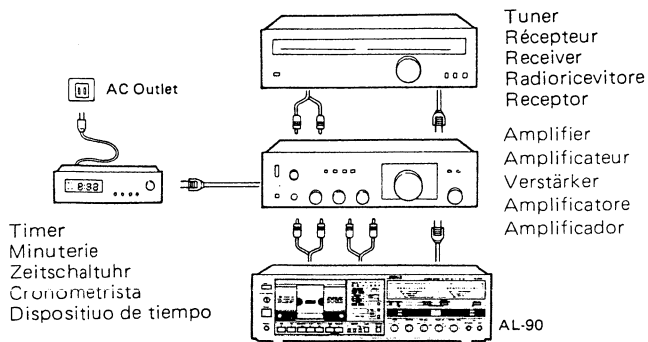


Fig. 33/Abb. 33

STOP W	REC O	REW D	PLAY P	PAUSE B	REC O	REC O	Tape Motion
②		①					REW → STOP
③		②	①				PLAY → REW → STOP
		②	①				PLAY → REW → PLAY
		③	①	②			PLAY → PAUSE → REVIEW → PLAY
		①	①				REVIEW → PLAY

Fig. 34/Abb. 34

STOP W	REC O	REW D	PLAY P	PAUSE B	REC O	REC O	Tape Motion
②			①				FF → STOP
③			①	②			PLAY → FF → STOP
			①	②			PLAY → FF → PLAY
			③				
			①	③	②		PLAY → PAUSE → CUE → PLAY
			①	①			CUE → PLAY

Fig. 35/Abb. 35

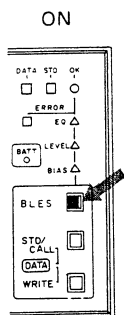


Fig. 36/Abb. 36

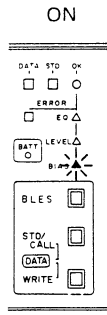
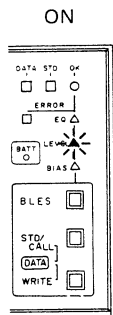


Fig. 37/Abb. 37

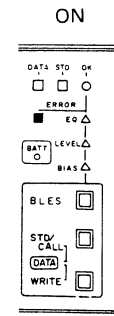
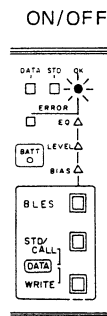
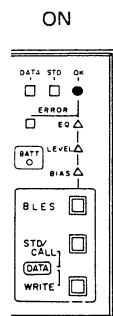
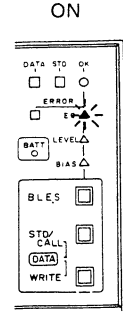
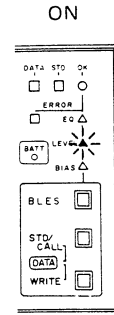


Fig. 38/Abb. 38

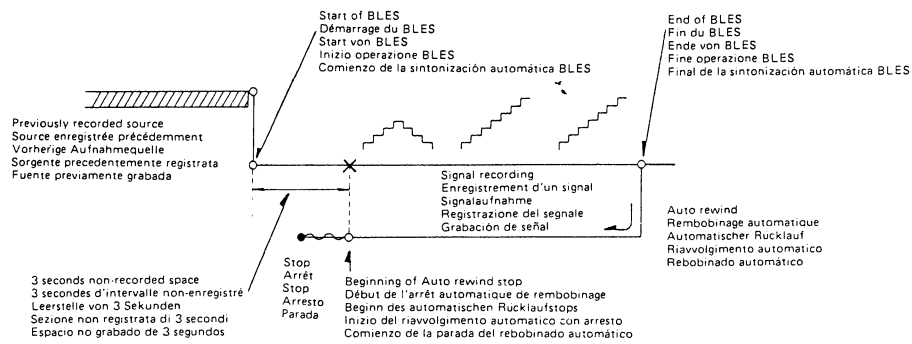


Fig. 39/Abb. 39

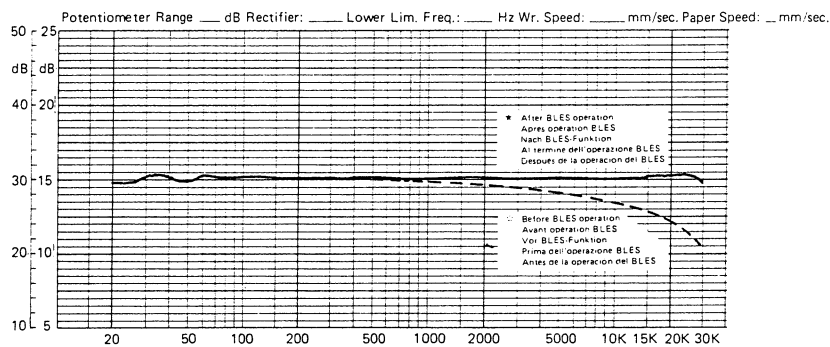


Fig. 40/Abb. 40

BLES Frequency Response (Normal Tape)
Réponse en fréquence BLES (bande normale)
BLES-Frequenzgang (Normalband)
Risposta in frequenza BLES (nastro normale)
Respuesta de frecuencia del BLES (cinta normal)

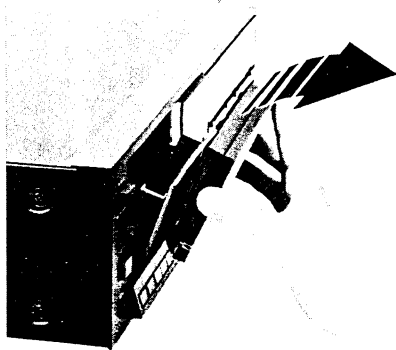
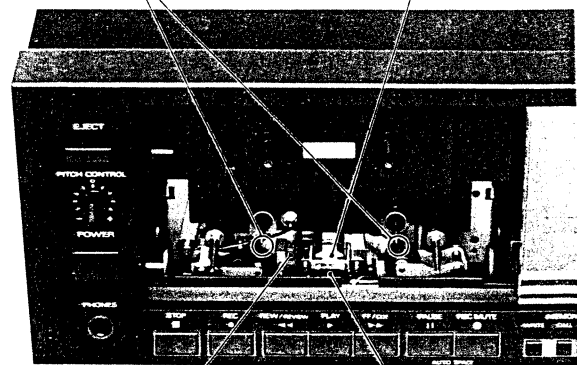


Fig. 41/Abb. 41

Pinch Roller and Capstan Shaft
Galet Presseur et axe de cabestan
Andruckrolle und Tonwelle
Rullino compressore e albero del rullo di trazione
Rodillo sujetador y eje de cabestrante

Tape Pad Lifter
Dispositif de levage du patin de bande
Andruckkissenheber
Linguetta sollevatrice del nastro
Almohadilla elevadora de la cinta



Erase Head
Tête d'effacement
Löschkopf
Testina di cancellamento
Cabeza de borrado

Record/Playback Head
Tête d'enregistrement/Reproduction
Aufnahme/Wiedergabekopf
Testina di registrazione/ascolto
Cabeza de grabación/reproducción

Fig. 42/Abb. 42

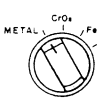
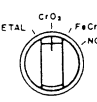
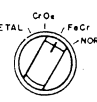
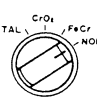
BRAND MARQUE FABRIKMARKE MARCA MARCA	MODEL MODELE MODELL MODELLO MODELO	TAPE SELECT SELECTEUR DE BANDE BANDSORTEN SELEZIONATORE DEI NASTRO SELECTOR DE CINTA			
TDK	MA, MA-R SA, SA-X OD, AD, ED, D, AD-X	METAL CrO ₂ NORM			
MAXELL	MX, MAXELL XL II, XL II-S XLI, UD, UL, LN, XLI-S	METAL CrO ₂ NORM			
SCOTCH	METAFINE MASTER II, MASTER 70 μ s, Chrome MASTER III, CLASSIC MASTER I, MASTER 120 μ s, CRYSTAL, TARTAN DYNARANGE, HIGH LANDER, HIGH ENERGY	METAL CrO ₂ FeCr NORM NORM			
SONY	METALLIC EHF, JHF, CR, Chrome, UCX-S DUAD, Ferri Chrome, Fe-Cr AHF, BHF, CHF, SHF, HFX, HF, LNX, C	METAL CrO ₂ FeCr NORM			
BASF	METAL IV Professional Professional II, Studio II, Chromdioxid, Chromdioxid Super, SCR Professional III, FCR, Ferro Chrom Studio I, Professional I, Performance, LH (I), SLH (I), LN	METAL CrO ₂ CrO ₂ FeCr NORM NORM			
AMPEX	GRAND MASTER II, 20 : 20 + High BIAS GRAND MASTER (I), 20 : 20 +, PLUS, LO-NOISE	CrO ₂ NORM			
AUDIO MAGNETICS	HIGH PERFORMANCE II XHE, HIGH PERFORMANCE, TRACS, SUPER	CrO ₂ NORM			
Agfa	Stereo Chrom Super Chrom, Carat Ferro Color, Super Ferro Dynamic (I)	CrO ₂ FeCr NORM			
MEMOREX	High Bias MRX ₃	CrO ₂ NORM			
PHILIPS	CHROMIUM FERRO-CHROMIUM SUPER FERRO, FERRO	CrO ₂ FeCr NORM			
FUJI	METAL, SUPER RANGE-SR UR, FX-II, Range 4X, FR-II FL, DR, ER, FX-I, RANGE (2) (4) (6), FR-I	METAL CrO ₂ NORM			
DENON	DXM DX-7 DX-5 DX-3, DX-1	METAL CrO ₂ FeCr NORM			
Recorded music tape available in the market (unless otherwise specified). Bande musicale enregistrée disponible sur le marché (à moins qu'il ne soit autrement spécifié). Aufgenommene Musikkassetten, die auf dem Markt verkauft werden, es die denn, dass etwas anderes vorgeschrieben ist. Un nastro registrato delle musiche si può ottenere sul mercato (se non è stato specificato). Cinta musical grabada disponible en el mercado (de no especificarse de otra manera).					NORM
120 μ s EQ, NORMAL BIAS					NORM
Position of Tape select switch. Positions du bouton selecteur de bande. Bandsortenwähler Tonbänder. Le posizioni della manopola selettore del nastro. Posición de la perilla de selección de cinta.		METAL	CrO ₂	FeCr	NORM
					
<ul style="list-style-type: none"> Set the tape select switch according to the kind of the tape so that the general performance of recording and playback can function to the full. Although the equalizer constant in playback is 70 μs for both the METAL, FeCr and CrO₂ tapes, the recording characteristics between those three tapes are slightly different, the recording equalizer characteristics are also different between them. Régler le bouton sélecteur de bande en fonction du type de bande utilisée de façon à obtenir les performances optimales à l'enregistrement et à la lecture. Bien que la constante d'égaliseur à la lecture soit de 70 μs pour les bandes METAL, FeCr et CrO₂, les caractéristiques d'enregistrement ainsi que celles d'égaliseur d'enregistrement sont quelque peu différentes entre ces trois bandes. Den Bandsortenwähler gemäß der verwendeten Tonbandsorte einstellen, um richtige Entzerrung und Vermagnetisierung bei Aufnahme und Wiedergabe zu erhalten. Die Wiedergabe-Entzerrung beträgt sowohl bei Reineisen- als auch bei METALL, FeCr und CrO₂-Band 70 μs, wogegen aber die Aufnahme-Entzerrung und die Vormagnetisierung unterschiedliche Werte für diese beiden Tonbandsorten aufweisen. Selezionare la manopola selettore del nastro al nastro della cassetta di uso in modo che la prestazione generale di registrazione e di riproduzione sarà ottima. Seppure l'equalizzatore costante, quando la riproduzione è 70 μs, per i nastri METAL, FeCr e CrO₂, le caratteristiche sulla registrazione sono un po' diversi fra di loro. Anche le caratteristiche di equalizzatore sono diversi per la registrazioni fra di loro. Regule la perilla del selector de cinta según el tipo de cinta para obtener excelente rendimiento en la grabación y reproducción. Aunque la constante del igualador en la reproducción es 70 μs para las cintas de METAL, FeCr y CrO₂, son ligeramente diferentes las características de grabación entre dichas tres cintas. Y las características del igualador de grabación son también diferentes. 					

Table 1/Tableau 1/Tabelle 1/Tavola 1/Tabla 1

Memory Switch Operation

Switches/Commutateurs/Tasten Commutatori/Interruptores						Tape Motion/Mouvement de band/Bandlauffunktion Scorrimiento del mastro/Movimiento de la cinta			
REW (◀◀)	PLAY (▶)	FF (▶▶)	EXEC- TION	AUTO		BEGIN	"0000"	"0200"	END
				PLAY	REW				
		ON							
		ON		ON				FF	
		ON			ON				
		ON		ON	ON				
ON								REW	
ON					ON				
	ON								
	ON		ON					PLAY	
	ON		ON	ON					
	ON			ON					
		ON	ON				FF	FF	FF
		ON	ON		ON				
ON			ON				REW	REW	REW
ON			ON		ON				
	ON				ON			PLAY	
								REW	
	ON			ON	ON			PLAY	
								REW	
ON				ON				PLAY	
								REW	
ON				ON	ON			PLAY	
								REW	

Table 2/Tableau 2/Tabelle 2/Tabela 2/Tabla 2

Switches/Commutateurs/Tasten Commutatori/Interruptores						Tape Motion/Mouvement de bande/Bandlauffunktion Scorrimento del nastro/Movimiento de la cinta			
REW (◀◀)	PLAY (▶)	FF (▶▶)	EXEC- UTEON	AUTO		BEGIN	"0000"	"0200"	END
	ON		ON		ON				
		ON	ON	ON					
		ON	ON	ON	ON				
ON			ON	ON					
ON			ON	ON	ON				
	ON		ON	ON	ON				

FF: Avancement rapide/Schnellvorlauf/Avanti Veloce/Avance Rapido
Play: Lecture/Wiedergabe/Riproduzione/Reproducción
Rew: Rembobinage/Rückauf/Indietro/Reenrollado
Excution: Exécution/Ausführung/Execution/Ejecución
Auto Play: Lecture automatique/Auto start/Automatica Riproduzione/Reproducción automática
Auto Rew: Rembobinage automatique/Auto Rücklauf/Automatico Indietro/Reenrollado automática
Begin: Début/Beginn/Inizio/Comienzo
End: Fin/Ende/Fine/Fin

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